

**REMARKS**

In the Office Action, the Examiner rejected claims 1, 3-27, 35, and 37-42, and objected to claims 10, 35, and 40. By the present Response, claims 10, 35, and 40 are amended. Upon entry of these amendments, claims 1, 3-27, 35, and 37-42 will remain pending in the present patent application. Reconsideration and allowance of all pending claims are requested.

**Claim Objections**

In the Office Action, the Examiner objected to claims 10, 35, and 40. Specifically, the Examiner stated:

Claims 10, 35, and 40 are objected to because of the following informalities: in claim 10, 5<sup>th</sup> line, replace “this” with “the” before “handle”. In claim 35, 4<sup>th</sup> line, delete “member” after “coils”. In claim 40, 2<sup>nd</sup> line, delete “the” after “wherein”, and replace “[the]” with “the”. Appropriate correction is required.

Office Action, page 2.

Applicant has amended the claims as set forth above. In view of these amendments, Applicant respectfully requests the Examiner to withdraw the objections to the claims.

**Rejections Under 35 U.S.C. § 102**

In the Office Action, the Examiner rejected claims 18-21 under 35 U.S.C. § 102(b) and/or 102(a) as being anticipated by Applicant’s purported admitted prior art (paragraph 3 of the specification). The Examiner also rejected claims 1, 3, 10, 11, 13-25, 35, and 37-41 under 35 U.S.C. § 102(b) as being anticipated by Keller et al. (U.S. Patent No. 4,145,595) (hereinafter “the Keller reference”). Applicant respectfully traverses these rejections.

***Legal Precedent***

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Moreover, the prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

***Omitted Features of Independent Claim 18 in the Purported Admitted Prior Art***

Turning now to the present claims, Applicant's purported admitted prior art fails to disclose each element of independent claim 18 which recites, *inter alia*, “*a tripod support system* secured to the torch head to flexibly support the torch head, the tripod comprising: a first leg comprising a first spring; a second leg comprising a second spring; and a third leg comprising a third spring” (emphasis added).

The portion of the specification cited by the Examiner as admitted prior art is paragraph 3 which reads:

Welding implements have been developed to enable the torch to have a degree of flexibility so that the electrode may be positioned relative to a user's hand. In a liquid-cooled torch, the flexibility is achieved by using a series of coiled tubes to secure the torch head to the torch. A shield gas is conveyed through the interior of one of the tubes. Additional tubes are used to convey cooling liquid to and from the torch head. The tubes are coiled around each other and may be flexed to reposition the torch head.

Specification, paragraph 3.

The Examiner further contended that the purported admitted prior art disclosure includes, *inter alia*, “a plurality of biasing members (in the form of a series of coiled tubes, or springs, flexibly coiled around each other) ... serving as a tripod support system, in the form of three springs/coils that are flexibly secured to the torch head.” Office Action, page 3.

However, Applicant submits that the passage in the present application, referred to by the Examiner as admitted prior art, fails to teach each and every element of claim 18. In particular, nothing in the paragraph cited by the Examiner suggests a *tripod support system*, as recited in claim 18. In fact, the Examiner admitted that the series of coiled tubes which act as the biasing members are “coiled around each other.” *Id.* By definition, the three biasing members of the recited *tripod support system* must be uncoupled (certainly not coiled around each other) in order to form the requisite three legs of the *tripod support system*, as recited in claim 18. Consequently, because the cited reference fails to teach each and every element of claim 18, the purported admitted prior art cannot anticipate independent claim 18 or the claims depending therefrom.

***Omitted Features of Independent Claims 1, 10, and 35 in the Keller Reference***

The Keller reference fails to disclose each element of independent claims 1, 10, and 35. These claims recite:

- Claim 1:** A flexible welding implement, comprising:
- a torch head operable to couple electricity to a welding electrode disposed therein;
  - a *cooling fluid supply tube* operable to convey a cooling fluid to the torch head;
  - a *cooling fluid return tube* operable to convey the cooling fluid from the torch head;
  - a first biasing member comprising a helix of *non-tubular material* defining an axial flow path and operable to flexibly and fluidically couple the cooling fluid

supply tube to the torch head such that the cooling fluid flows axially through the flow path of the first biasing member; and

a second biasing member comprising a helix of *non-tubular material* defining an axial flow path and operable to flexibly couple the cooling fluid return tube to the torch head. (Emphasis added).

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**Amended Claim 10:** A flexible welding implement, comprising:

a torch coupleable to a handle, comprising:

a torch head operable to receive a cooling liquid; and

a *plurality of non-tubular coils* disposed generally parallel with one another and with an axis of the handle within the torch to enable the torch head to be displaced relative to the handle, *wherein the torch directs the cooling liquid to flow through the coils to and from the torch head.* (Emphasis added).

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**Amended Claim 35:** A welding implement, comprising:

a torch head;

a *plurality of tubes operable to convey fluids; and*

a *plurality of coils comprising a helix of non-tubular material* defining an axial flow path and secured to the torch head to enable the torch head to be angled relative to the plurality of tubes and *to route fluids axially through the coils.* (Emphasis added).

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In the Office Action, the Examiner suggested that “[b]ecause the helix [of Keller] is embedded in and cushioned by an elastomeric material (serving as a tube support member), it is also feasible to make a double helix (forming a plurality of biasing members) of tubular or solid wire when it is necessary to supply a cooling liquid having both a flow inlet (supply line) and a flow outlet (return line) to the torch (both lines of

which would include axial flow components), the combination of which would serve as a tripod support system, in the form of three springs/coils that are flexibly secured to the torch head while being disposed generally parallel with one another and with an axis of a handle supporting the torch head.” Office Action, pages 3-4 (emphasis in original). To support this position, the Examiner relied upon lines 19-27 on page 5 of the Keller reference which read:

Because the helix is embedded in and cushioned by an elastomeric material, it is also feasible to make the double helix of tubular rather than solid wire, this being useful when it is necessary to supply a cooling liquid for the torch through the helix. In this case, one coil of the double helix serves as a flow inlet and the other as a flow outlet, the central bore 29 in the body 28 still providing a passage for the supply of shielding gas.

Applicant respectfully submits that the Keller reference fails to disclose each and every element of independent claims 1, 10, and 35, and thus fails to anticipate these claims. With respect to independent claim 1, the Examiner contended it is “feasible to make a double helix ... of tubular or solid wire.” Office Action, page 4. However, in order “to supply a cooling liquid having both a flow inlet (supply line) and a flow outlet (return line),” the double helix would *necessarily* have to be made of *tubular* material. Otherwise, the only available flow path to the torch head would be through the central bore 29 in the body 28. According to the Keller reference, the central bore 29 appears to be reserved for the passage of shielding gas. Therefore, the double helix in the Keller reference *must be made of tubular material* in order to provide a cooling supply tube and a cooling return tube, as recited in claim 1. However, because claim 1 clearly recites two biasing members comprising of *non-tubular* material, the Keller reference cannot anticipate independent claim 1 or the claims depending therefrom.

The Keller reference also fails to anticipate independent claims 10 and 35 for similar reasons. For instance, independent claim 10, as amended, recites a “plurality of

non-tubular coils ... wherein the torch directs the cooling liquid to flow through the coils to and from the torch head.” Here again, according to the Examiner’s interpretation of the Keller reference, in order for the cooling liquid to flow *to and from* the torch head, the coils described in the Keller reference *would have to be made of tubular material*, as opposed to the *non-tubular* coils specifically recited in independent claim 10 as amended. Therefore, the Keller reference cannot anticipate independent claim 10 as amended or the claims depending therefrom. Similarly, independent claim 35, as amended, recites “a plurality of tubes operable to convey fluids; and a plurality of coils comprising a helix of non-tubular material ... to route fluids axially through the coils.” Therefore, for the same reasons, the Keller reference cannot anticipate independent claim 35 as amended or the claims depending therefrom.

For at least these reasons, Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 102 and allowance of claims 1, 3, 10, 11, 13-25, 35, and 37-41.

### **Rejections Under 35 U.S.C. § 103**

In the Office Action, the Examiner rejected claims 4-9 under 35 U.S.C. § 103(a) as being unpatentable over Keller in view of Delgado et al. (U.S. Patent No. 6,855,905) (hereinafter “the Delgado reference”). The Examiner also rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over Keller in view of Rehrig (U.S. Patent No. 5,403,987) (hereinafter “the Rehrig reference”). The Examiner also rejected claims 26, 27, and 42 under 35 U.S.C. § 103(a) as being unpatentable over Keller in view of Willgoths et al. (U.S. Patent No. 3,999,033) (hereinafter “the Willgoths reference”). Applicant respectfully traverses these rejections.

### ***Legal Precedent***

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979).

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

### ***Deficiencies of the Rejections***

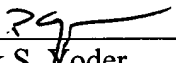
Applicant notes that each of claims 4-9, 12, 26, 27, and 42 depends directly or indirectly from independent claims 1, 10, 18, and 35. As discussed above, neither Applicant's purported admitted prior art nor the Keller reference disclose each and every element of Applicant's recited invention as claimed in independent claims 1, 10, 18, and 35. Furthermore, the Delgado, Rehrig, and Willgohs references do not obviate the deficiencies of Applicant's purported admitted prior art or the Keller reference. As a result, dependent claims 4-9, 12, 26, 27, and 42 are allowable on the basis of their dependency from respective allowable independent claims, as well as for the subject matter separately recited in these dependent claims. Accordingly, Applicant respectfully requests withdrawal of the Examiner's rejection and allowance of claims 4-9, 12, 26, 27, and 42.

**Conclusion**

In view of the remarks and amendments set forth above, Applicant respectfully requests allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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\_\_\_\_\_  
Patrick S. Yoder  
Reg. No. 37,479  
FLETCHER YODER  
P.O. Box 692289  
Houston, TX 77269-2289  
(281) 970-4545